

SITE:	Vanna St Dump
BREAK:	1.9
OTHER:	vol. 1

NEW ARSENIC IN DRINKING WATER STANDARD ESTABLISHED BY USEPA

Review by
Dr. Claude E. Terry

For the past five (5) or so years the USEPA and the National Research Council have been reviewing the toxicity of arsenic, particularly in **drinking water**. The National Research Council (NRC), the United State's most eminent scientific body, recommended dropping the arsenic level allowed in drinking water to 5 parts per billion (5 ppb), from the current 50 ppb, in use since 1942. On June 22, 2000 USEPA proposed 5 ppb as the drinking water standard.

After review, the EPA decided, for cost reasons, to set the standard (Maximum Contaminant Level or MCL) at 10 ppb. In January 2001, the new administration prevented implementation of the new standard, asking the NRC to "review" its decision. The NRC instead reviewed new (1999-2001) data, and revisited old studies. Their conclusion was that arsenic, even at 10 ppb, could cause up to 37 additional cancer deaths per 10,000 people drinking water for a full lifetime. They also pointed out that the number of deaths, spread over years, would be very difficult to see in statistical (epidemiological) studies. EPA moved quickly to put in the 10 ppb standard (MCL), but there were calls to drop the MCL to 3 ppb, at the reasonable detection limit.

What does this mean for the City of Fort Valley?

First, this rethinking of arsenic's carcinogenicity (cancer-causing effects) supports the WCRG's long-time concerns over arsenic in our soil and its effects on drinking water if left unremediated.

Second, this calls for rethinking the levels of arsenic that can be left in soil or in house dust. The suggestion by the NRC that diabetes and hypertension also result from arsenic exposure is also a concern for this community.

Given the conclusions of the NRC, EPA and ATSDR, it appears that we have to rethink the "slope factor" (cancer-related number) used to determine cleanups.

Fortunately, EPA had already moved to set a <20 ppm soil level (effectively 18 ppm) for any residential soil cleanup. It appears that groundwater protection will require, at least, that level of removal. This also requires rethinking the levels of arsenic in house dust that can be left in place. Again, fortunately, EPA has tested homes currently and is examining data developed by the US Army Corps of Engineers as to the house dust cleanup levels (living space and attic).

We urge USEPA and GAEPD to look very carefully at any decision concerning leaving significant levels of arsenic in either the soil or homes in Fort Valley.



10583625

It appears to us that GAEPD erred in not forcing a total cleanup in 1986-1987, and that EPA was mistaken in "negotiating" cleanup levels in the mid-1990's, rather than following the best science available. We now know that water levels of 3 ppb may induce one (1) additional cancer per 1,000 people who drink that water for a lifetime. That knowledge should make us *a//* less willing to accept halfway measures for groundwater protection.

Arsenic

The Safe Drinking Water Act requires EPA to revise the existing 50 parts per billion (ppb) standard for arsenic in drinking water. EPA is implementing a 10 ppb standard for arsenic.

EPA Implements Standard of 10 ppb

On October 31, 2001 EPA announced its decision to move forward in implementing the standard for drinking water at 10 ppb.

- [Fact Sheet](#)
- [Press Release](#)

The information below provides a history of EPA's rulemaking efforts related to arsenic and the various technical and factual information associated with those efforts.

Three Expert Panel Reviews

Reports and recommendations on the science, cost of compliance, and benefits analyses in support of a rule on arsenic in drinking water are available [[read online](#)] ([PDF file](#)). These reports were prepared by independent, expert panels convened by the National Academy of Sciences, the National Drinking Water Advisory Council, and the EPA Science Advisory Board.

- The National Academy of Sciences:
["Arsenic in Drinking Water: 2001 Update"](#) [EXIT EPA →](#)
(September 12, 2001)
- EPA's Science Advisory Board:
[Review of the Arsenic Rule Benefits Analysis](#) ([PDF file](#))
(August 30, 2001)
- The National Drinking Water Advisory Council: Cost review
report ([PDF file](#)) with a cover letter to Administrator
Christine Todd Whitman ([read online](#)). (August 23, 2001)

Request for comment on the new Arsenic standard

On July 19, 2001 (66 FR 37617), EPA issued a proposal [[read online](#)] ([PDF file](#)) to request comment on whether the data and technical analyses associated with the January 2001 arsenic rule support setting the arsenic standard at 3 ppb, 5 ppb, 10 ppb, or 20 ppb. On August 16, 2001, EPA provided a separate docket electronic mail (e-mail) address, ow-arsenic-docket@epa.gov, to help the Agency process comments [[read online](#)] ([PDF file](#)) on the July 19th proposed rule.

Health effects and risk review

The National Academy of Sciences' (NAS) National Research Council's subcommittee on arsenic held meetings on May 21, June 20, and July 18, 2001. NAS has posted [information on the scope of the study, membership, meetings, and meeting summaries of the closed sessions](#). [EXIT EPA →](#) Information on the subcommittee process is also available on the NAS website under [frequently asked questions](#). [EXIT EPA →](#)

Process for the Cost Review



**Drinking Water
Standards Program**

**Customer
Satisfaction**

Council workgroup ([read online](#)). Arsenic cost workgroup membership and meetings summaries are available. A final workgroup meeting was held August 2-3 in Washington, DC. The entire NDWAC conferred on August 22 to discuss the report and what to transmit to EPA.

Process for the Benefits review

EPA's Science Advisory Board (SAB) requested nominations for the SAB Arsenic Benefits Review Panel ([read online](#)). The Federal Register notice for the July 19-20, 2001 meeting ([read online](#)) listed the charge and the meeting minutes are available at www.epa.gov/sab/01minute.htm.

Second Extension of the Effective Date

On April 23, 2001 EPA requested public comment on a proposal to delay the effective date [([read online](#)) (PDF file)] for the rule until February 22, 2002. On May 22, 2001 EPA announced that it would delay the effective date [([read online](#)) (PDF file)] for the rule until February 22, 2002 allowing time to complete the reassessment process outlined above and to afford the public a full opportunity to provide further input.

First Extension of Effective Date

In accordance with the January 20, 2001 memorandum from Andrew Card, Assistant to the President and Chief of Staff, entitled "[Regulatory Review Plan](#)," ~~EPA~~ EPA temporarily delayed the effective date for this rule for 60 days, from March 23, 2001 until May 22, 2001. The delay of effective date was published in the Federal Register on March 23, 2001 [([read online](#)) (PDF file)].

EPA Adopts a Stricter Standard for Arsenic

On January 22, 2001 EPA adopted a new standard for arsenic in drinking water at 10 ppb.

- [Fact sheet about the January 2001 arsenic rule](#)
- [Technical fact sheet about the January 2001 arsenic rule](#)
- [Quick Reference Guide](#) (EPA 816-F-01-004) to the January 2001 rule
- Arsenic in drinking water rule (66 FR 6976 / January 22, 2001) ([read online](#)) ~ ([PDF file](#))
- Detailed rule-making support documents for January 2001 rule:
 - [Economic Analysis](#) (871 Kb PDF file) (EPA 815-R-00-026 / December 2000)
 - [Technologies and costs for removal of arsenic from drinking water](#) (652 Kb PDF file) (EPA 815-R-00-028 / December 2000)
 - [Analytical Methods Support Document for Arsenic in Drinking Water](#) (170kb PDF) (EPA-815-R-00-010 / December 1999)
 - [Arsenic Occurrence in Public Drinking Water Supplies](#) (1055 Kb PDF) (EPA-815-R-00-023 / December 2000) [Appendices](#) (5426 Kb PDF)

Proposed Arsenic Rule

On June 22, 2000 EPA proposed a 5 ppb standard for arsenic. EPA requested comment on 10 ppb, 5 ppb and 3 ppb.

- Federal Register Notice (65 FR 38888 / June 22, 2000) ([read online](#)) ~ ([PDF file](#))
- Proposal support documents
 - [Proposal fact sheet](#)

- o [Regulatory Impact Analysis](#) (June 2000) (PDF file)
- o [Technologies & Costs for removal of arsenic in drinking water](#) (April 1999) (PDF file)
- o [Notice of Data Availability](#) (65 FR 63027 / October 20, 2000) (PDF file)
- o [Correction Notice](#) (65 FR 64479 / October 27, 2000)

You will need Adobe Acrobat Reader to view the Adobe PDF files on this page. See [EPA's PDF page](#) for more information about getting and using the free Acrobat Reader.

[Search](#) | [Safewater Home](#) | [EPA Home](#)
[Office of Water](#) | [Comments/Questions](#)

This page was updated 11/02/2001 15:03:45
<http://www.epa.gov/safewater/arsenic.html>